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Mumps — United States, 1983-1984

During the first 37 weeks of 1984, a provisional total of 2,112 mumps cases was reported to CDC; this is a 13.5% decline from the 2,443 cases reported during the same period in 1983. To date, two states and the District of Columbia have reported no mumps cases.

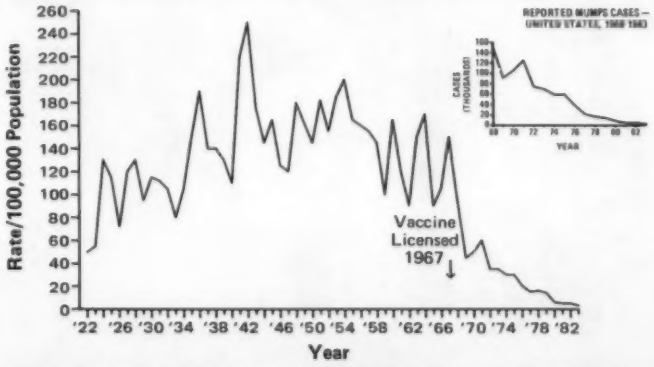
In 1983, a total of 3,355 mumps cases was reported to CDC, for a reported incidence rate of 1.4 cases per 100,000 population (Table 1). This is 36% lower than the 1982 total of 5,270 cases and is the lowest reported incidence rate since mumps became a nationally notifiable disease in 1968 (Figure 1). It represents a 98% decrease from 1968, the year after mumps vaccine licensure. In 1983, one state reported no mumps; in four other states, mumps is not a reportable disease.

Age-specific data are available for 2,074 (61.8%) of the cases reported for 1983 (Table 1). As in 1981 and 1982, approximately three-fourths of mumps cases for which ages were known occurred among individuals under 15 years of age. During the past 3 years, the reported incidence decreased for all age groups. While the reported incidence among children under 5 years old increased by 6.5% from 1982 to 1983, the rates in the other age groups declined by 17%-57%. In 1983, a 55% decline occurred among persons 10-19 years of age, the age group responsible for the overall increased occurrence of mumps observed from 1981 to 1982. During 1982, the highest age-specific incidence shifted for the first time from the 5- to 9-year age group to the 10- to 14-year age group. However, in 1983, 5- to 9-year-olds again had the highest incidence; children 10-14 years of age had the next highest risk of acquiring disease.

Reported by Div of Immunization, Center for Prevention Svcs, CDC.

Editorial Note: Mumps vaccine has consistently been shown to be safe, effective, and cost-beneficial (*1-4*). The distribution of over 65 million doses of mumps-containing vaccine in

FIGURE 1. Mumps incidence rates — United States, 1922-1983



Mumps — Continued

the United States over the past 17 years has been associated with a 90% or greater decline in the reported occurrence of mumps in all age groups (Figure 2). As in the prevaccine era, persons under 15 years of age continue to have the highest incidence rate (5.0 cases/100,000 population); this rate is over 10 times that for persons 15 years of age or older (0.4/100,000). In a 1982-1983 nationwide survey, 95% of persons entering school were found to be immunized against mumps; however, the school-aged population continues to be the group at highest risk for disease. Unvaccinated cohorts exist in many areas (*5,6*).

A school immunization law that includes mumps may be effective in controlling mumps infection, since this would ensure high immunization levels. Based on 1982 data, the reported mumps incidence rate for states that required proof of mumps immunity for school entry was

TABLE 1. Age distribution of reported mumps cases and estimated incidence rates* — United States, 1981-1983†

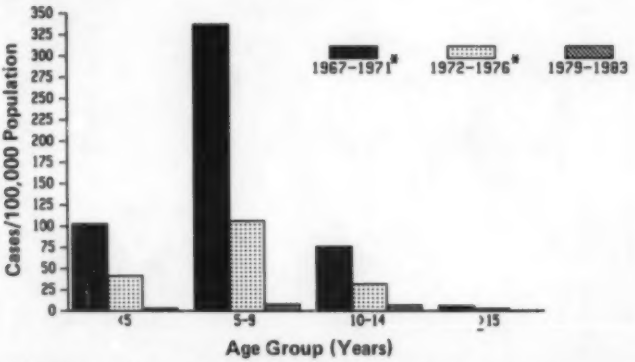
Age group (years)	1981 No.	1981 %	1981 Rate	1982 No.	1982 %	1982 Rate	1983 No.	1983 %	1983 Rate	Rate change§ 1981-1983 (%)
< 5	452	14.4	4.2	366	9.4	2.8	333	16.0	3.0	−28.1
5-9	1,043	33.2	10.2	1,058	27.0	8.9	708	34.1	7.2	−30.0
10-14	956	30.5	8.2	1,523	38.9	11.4	535	25.8	4.9	−41.0
15-19	311	9.9	2.4	611	15.6	4.1	249	12.0	2.1	−12.5
≥ 20	377	12.0	0.4	355	9.1	0.3	249	12.0	0.2	−34.4
Age known (total)	3,139	63.5	—	3,913	74.3	—	2,074	61.8	—	—
Age unknown (total)	1,802	36.5	—	1,357	25.7	—	1,281	38.2	—	—
Total	**4,941**	**100.0**	**2.1**	**5,270**	**100.0**	**2.3**	**3,355**	**100.0**	**1.4**	**−33.5**

*Cases per 100,000 population projected census data for each year extrapolated from the age distribution of cases for which ages were known.

†Not adjusted for states not reporting mumps: 1981—New Mexico and Oklahoma; 1982 and 1983—New Mexico, Oklahoma, Florida, Oregon.

§Rate changes are derived from actual calculated rates, not rounded figures given in the table.

FIGURE 2. Average annual mumps incidence rates, by age group — United States, 1967-1983



*California, Massachusetts, New York City only. Total U.S. age data not available.

Mumps — Continued

one-half that for the 19 states without such a law (*2*). Twenty states currently do not require proof of mumps immunity for school entry, and 15 states have laws that affect only first entry to school. Based on 1983 data, there was a 20% lower mumps incidence rate between states with laws and those with no law. In a recent mumps outbreak among schoolchildren in New Jersey, children covered by the state's school entry law had only one-fifth the risk for mumps as children not affected by the law (*3*). These observations indicate that further declines in the reported mumps incidence rate can be expected as more children entering school are required to provide proof of mumps immunity for school attendance.

References

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3. CDC. Mumps outbreak—New Jersey. MMWR 1984;33:421-2, 427-30.
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Congo-Crimean Hemorrhagic Fever — Republic of South Africa

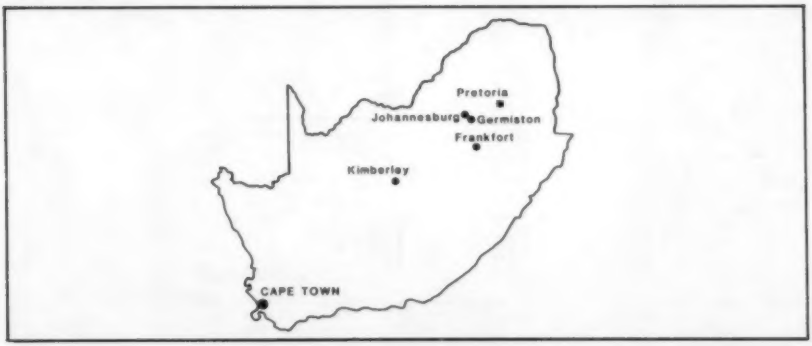
Seven cases of Congo-Crimean hemorrhagic fever (CCHF) have recently been reported from the Republic of South Africa (Figure 3). Four of these patients were exposed to a single ill cow; the fifth, to two additional ill cows from the same farm. The other two cases are unrelated. Brief case reports follow.

Cases 1-5: A 23-year-old farm laborer became ill May 1, 1984, with severe headache, fever, and dizziness. On May 4, he was in a confused state, and by May 9, he became comatose. A concussion was diagnosed, and surgery was performed for intracranial bleeding and hydrocephalus. The man did not regain consciousness and died May 27. Serum taken May 17 had an immunofluorescence assay (IFA) titer of 1:128 to CCHF, with a positive anti-immunoglobulin M (IgM) conjugate.

The second and third patients, who worked on the same farm, became ill May 3 and May 5, respectively, with severe headaches, backaches, and fever. One had rash and melanic stools. Severe symptoms lasted only a few days, but full recovery was slow. IFA titers were positive in both cases.

The fourth patient owned the farm in Frankfort, Orange Free State province, on which the other three patients worked. He became ill May 8, with sudden onset of severe headache,

FIGURE 3. Locations of Congo-Crimean hemorrhagic fever — Republic of South Africa, 1983-1984



Hemorrhagic Fever – Continued

fever, and rigors. Within a few days, he developed mental confusion, hematemesis, epistaxis, and a petechial rash. He gradually recovered but continued to suffer from mild mental confusion when discharged May 26.

The fifth patient, a 70-year-old laborer, became ill several days after assisting a veterinarian in autopsies of two cows. He recovered but could remember neither the date of onset nor the duration of his illness. CCHF was confirmed on May 18 by IFA. No other farm residents developed antibodies.

The farm owner had purchased 46 cows on January 17, and January 31, 1984, from the southern Cape province, an area presumed free of CCHF. Two became ill and died March 13. Autopsies were performed by the veterinarian who the fifth patient had assisted; he diagnosed anaplasmosis, a tick-borne disease. A third cow became ill and died April 29. The veterinarian diagnosed foreign-body reticulitis/pericarditis, but no autopsy was performed. All three of the laborers who subsequently became ill had handled the third cow the day of its death and recalled soiling their hands with blood-tinged discharge from the cow's nose. The farmer had not handled the dead cow but had given it intravenous treatments several days earlier. Shortly before his illness, he had found a tick on his sock; the tick had not bitten him, but he had crushed it between his fingers.

Twenty of the 46 new cows were bled on May 18. Seventeen had IFA antibodies against

(Continued on page 541)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	38th Week Ending			Cumulative, 38th Week Ending		
	Sept. 22, 1984	Sept. 24, 1983	Median 1979-1983	Sept. 22, 1984	Sept. 24, 1983	Median 1979-1983
Acquired Immunodeficiency Syndrome (AIDS)*	90	33	N	2,976	1,393	N
Aseptic meningitis	305	630	453	5,157	8,320	6,102
Encephalitis: Primary (arthropod-borne & unspec.)	35	82	58	737	1,281	1,022
Post-infectious	2	4	1	72	75	75
Gonorrhea: Civilian	17,333	21,792	21,756	602,806	654,716	721,702
Military	496	557	542	15,607	17,827	20,066
Hepatitis: Type A	428	483	544	15,158	15,126	18,346
Type B	548	583	475	18,522	17,352	14,768
Non A, Non B	54	69	N	2,658	2,476	N
Unspecified	126	183	236	4,013	5,237	7,376
Legionellosis	17	16	N	463	519	N
Leprosy	7	10	7	166	187	153
Malaria	31	24	29	694	589	812
Measles: Total**	10	8	49	2,308	1,237	2,621
Indigenous	7	6	N	2,050	1,025	N
Imported	3	2	N	258	212	N
Meningococcal infections: Total	31	30	31	2,059	2,075	2,075
Civilian	31	30	30	2,054	2,060	2,060
Military	-	-	-	5	15	15
Mumps	25	40	51	2,237	2,483	4,287
Pertussis	118	71	45	1,636	1,739	1,113
Rubella (German measles)	56	12	22	613	786	2,023
Syphilis (Primary & Secondary): Civilian	637	783	706	20,226	23,647	22,236
Military	3	10	9	232	299	276
Toxic Shock syndrome	5	7	N	338	322	N
Tuberculosis	516	491	540	15,542	17,007	19,554
Tularemia	8	8	8	240	226	184
Typhoid fever	7	16	10	233	312	356
Typhus fever, tick-borne (RMSF)	31	31	25	721	1,002	992
Rabies, animal	82	100	127	3,865	4,639	4,722

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1984		Cum. 1984
Anthrax	1	Plague	22
Botulism: Foodborne (Calif. 2)	10	Poliomyelitis: Total	2
Infant (Colo. 1)	67	Paralytic	2
Other	6	Psittacosis	62
Brucellosis (N.J. 1, Ark. 1, Tex. 1, Calif. 2)	84	Rabies, human	1
Cholera	-	Tetanus (Tex. 3)	47
Congenital rubella syndrome	3	Trichinosis (N.Y. City 1)	61
Diphtheria	1	Typhus fever, flea-borne (endemic, murine) (Tex. 2, Hawaii 1)	21
Leptospirosis (Tex. 1)	23		

*The 1983 reports which appear in this table were collected before AIDS became a notifiable condition.

**One of the 9 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending September 22, 1984 and September 24, 1983 (38th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1984	1984	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1983	1984	1984	1984	1984	1984	Cum. 1984
UNITED STATES	2,975	305	737	72	602,806	654,716	426	548	54	126	17	156
NEW ENGLAND	98	13	34	1	17,165	16,405	17	41	2	17	4	8
Maine	-	-	-	-	713	809	-	1	-	-	2	-
N.H.	1	-	6	-	505	534	-	1	-	-	-	-
Vt.	-	-	4	-	282	319	1	-	-	-	1	-
Mass.	54	4	15	-	7,090	7,095	10	15	-	15	-	6
R.I.	6	8	-	-	1,220	935	1	5	-	-	1	2
Conn.	37	1	9	1	7,355	6,713	5	19	2	2	-	-
MID ATLANTIC	1,303	60	94	10	81,254	83,054	52	117	4	8	2	32
Upstate N.Y.	123	30	32	7	12,722	13,269	7	11	1	2	-	2
N.Y. City	939	2	8	-	32,723	33,163	22	67	-	5	2	30
N.J.	173	10	25	-	13,947	15,599	15	23	2	1	-	-
Pa.	68	18	29	3	21,862	21,023	8	16	1	-	-	-
E.N. CENTRAL	137	63	195	17	84,332	94,781	24	50	3	6	3	6
Ohio	16	34	59	9	22,443	24,277	4	14	1	3	3	2
Ind.	22	11	45	-	8,892	10,054	3	11	-	2	-	-
Ill.	69	-	22	6	19,047	27,066	6	2	1	1	-	2
Mich.	20	18	43	-	24,575	25,136	11	23	1	-	-	2
Wis.	10	-	26	2	9,375	8,228	-	-	-	-	-	-
W.N. CENTRAL	31	11	58	3	29,478	31,043	10	15	1	1	1	1
Minn.	7	3	22	-	4,491	4,302	2	4	-	-	-	-
Iowa	2	1	24	-	3,225	3,354	1	1	-	-	-	1
Mo.	17	2	7	-	14,193	15,289	2	3	-	1	1	-
N. Dak.	-	-	-	-	287	316	-	-	-	-	-	-
S. Dak.	-	-	1	1	687	804	1	1	-	-	-	-
Nebr.	2	-	1	-	1,999	1,945	3	1	-	-	-	-
Kans.	3	5	3	2	4,596	5,033	1	5	1	-	-	-
S. ATLANTIC	412	38	113	15	153,306	169,296	9	108	10	11	5	6
Del.	4	-	1	-	2,851	3,069	2	-	-	-	2	-
Md.	29	6	24	-	17,830	21,657	-	9	-	4	-	-
D.C.	67	-	-	-	10,971	11,435	-	18	-	-	-	1
Va.	26	11	25	5	14,646	15,292	1	2	3	2	2	4
W. Va.	4	4	17	-	1,906	1,862	-	-	-	-	-	-
N.C.	9	5	21	7	25,149	26,265	1	12	4	2	-	-
S.C.	7	1	4	-	15,451	15,913	-	8	-	-	1	-
Ga.	43	6	2	1	27,934	33,388	2	27	-	1	-	-
Fla.	223	5	19	2	36,568	40,415	3	32	3	2	-	1
E.S. CENTRAL	21	19	40	6	53,372	54,983	9	32	3	2	-	-
Ky.	9	12	8	-	6,463	6,460	3	5	-	-	-	-
Tenn.	5	7	13	1	21,982	22,753	4	16	2	2	-	-
Ala.	5	-	17	5	16,823	16,782	1	9	1	-	-	-
Miss.	2	-	2	-	8,104	8,988	1	2	-	-	-	-
W.S. CENTRAL	207	29	59	4	82,473	92,366	74	27	7	44	1	17
Ark.	1	-	-	2	7,197	7,362	-	1	1	-	-	1
La.	31	1	6	-	18,387	17,516	4	-	-	1	-	1
Okla.	7	5	19	1	8,961	10,703	12	3	2	-	1	-
Tex.	168	23	34	1	47,928	56,785	58	23	4	43	-	15
MOUNTAIN	48	22	23	8	19,718	20,777	57	25	9	4	1	8
Mont.	-	2	-	-	811	863	2	1	-	-	-	-
Idaho	-	1	-	-	942	872	2	2	1	-	-	-
Wyo.	1	-	-	-	544	542	1	-	-	1	1	-
Colo.	25	6	7	-	5,615	5,814	7	6	-	2	-	-
N. Mex.	-	4	-	-	2,345	2,576	16	1	3	-	-	-
Ariz.	11	5	9	3	5,334	5,960	15	10	2	2	-	6
Utah	6	3	7	5	961	987	-	-	-	-	-	1
Nev.	5	1	-	-	3,166	3,163	14	5	3	-	-	1
PACIFIC	718	50	121	8	81,708	92,031	174	133	15	33	-	88
Wash.	38	5	7	-	5,953	7,152	5	2	-	-	-	3
Oreg.	7	-	-	-	4,795	4,921	11	3	-	-	-	1
Calif.	660	44	111	8	67,497	75,759	158	127	15	33	-	69
Alaska	1	-	-	-	2,040	2,397	-	1	-	-	-	-
Hawaii	12	1	3	-	1,423	1,802	-	-	-	-	-	15
Guam	-	U	-	-	95	114	U	U	U	U	U	-
P.R.	33	7	3	1	2,436	2,146	6	5	-	4	-	2
V.I.	-	-	-	-	356	199	-	-	-	-	-	-
Pac. Trust Terr.	-	U	-	-	-	-	U	U	U	U	U	-

N: Not notifiable U: Unavailable

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 22, 1984 and September 24, 1983 (38th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983
UNITED STATES	684	7	2,050	3	258	1,237	2,059	25	2,237	118	1,636	1,739	56	613	786
NEW ENGLAND	40	-	93	-	11	16	139	-	69	1	42	56	1	19	15
Maine	-	-	-	-	-	-	1	-	22	-	2	4	-	1	-
N.H.	-	-	33	-	3	3	7	-	15	-	6	7	-	1	4
Vt.	4	-	2	-	5	-	26	-	5	-	19	8	-	-	5
Mass.	23	-	48	-	-	5	60	-	10	-	11	31	1	17	6
R.I.	4	-	-	-	-	-	12	-	8	-	2	5	-	-	-
Conn.	9	-	10	-	3	8	33	-	9	1	2	1	-	-	-
MID ATLANTIC	109	5	116	2	34	96	344	6	265	6	145	316	1	217	134
Upstate N.Y.	23	2	23	1§	12	10	116	3	71	5	80	98	-	99	25
N.Y. City	29	3	89	1†	15	56	75	3	23	1	7	50	1	98	86
N.J.	34	-	4	-	2	27	69	-	130	-	11	19	-	16	3
Pa.	23	-	-	-	5	3	84	-	41	-	47	149	-	4	20
E.N. CENTRAL	64	-	611	1	71	647	326	2	891	4	387	409	1	82	116
Ohio	15	-	3	-	6	85	110	-	436	-	64	120	-	2	2
Ind.	2	-	2	-	1	400	39	-	53	-	225	48	-	5	23
Ill.	23	-	177	1§	2	154	72	1	168	-	22	141	1	48	48
Mich.	13	-	408	-	54	7	63	1	161	1	26	32	-	19	15
Wis.	11	-	21	-	8	1	42	-	73	3	50	68	-	8	28
W.N. CENTRAL	19	-	38	-	8	7	124	2	92	1	111	109	-	34	38
Minn.	6	-	35	-	3	1	25	-	4	-	12	38	-	4	8
Iowa	2	-	-	-	-	-	21	1	22	-	10	6	-	1	-
Mo.	6	-	3	-	-	1	37	-	9	-	18	21	-	-	-
N. Dak.	1	-	-	-	-	-	1	-	2	-	-	2	-	3	-
S. Dak.	1	-	-	-	-	-	6	-	-	-	8	7	-	-	-
Nebr.	1	-	-	-	-	-	11	-	4	-	11	-	-	-	-
Kans.	2	-	-	-	5	5	23	1	51	1	52	35	-	26	30
S. ATLANTIC	101	1	17	-	28	201	430	-	165	8	120	220	-	21	92
Del.	4	-	-	-	-	-	3	-	2	-	2	3	-	-	-
Md.	25	-	6	-	14	10	34	-	33	3	11	29	-	1	3
D.C.	1	-	-	-	5	-	8	-	-	-	-	-	-	-	-
Va.	27	-	1	-	2	23	48	-	16	1	14	46	-	-	2
W. Va.	1	-	-	-	-	-	6	-	35	-	11	7	-	-	-
N.C.	8	-	-	-	-	1	67	-	17	1	24	26	-	-	10
S.C.	2	-	-	-	-	4	44	-	4	-	1	13	-	-	1
Ga.	9	-	-	-	1	8	84	-	17	-	10	63	-	2	11
Fla.	24	1	10	-	6	155	136	-	41	3	47	33	-	18	65
E.S. CENTRAL	8	-	1	-	2	6	119	-	45	-	12	25	-	9	14
Ky.	1	-	1	-	-	1	48	-	9	-	1	11	-	3	13
Tenn.	2	-	-	-	2	-	30	-	15	-	7	5	-	-	-
Ala.	5	-	-	-	-	5	28	-	6	-	-	5	-	3	1
Miss.	-	-	-	-	-	-	13	-	15	-	4	4	-	3	
W.S. CENTRAL	63	-	508	-	25	74	217	5	122	11	281	325	48	61	101
Ark.	-	-	8	-	-	13	31	-	7	-	15	19	-	3	-
La.	9	-	8	-	-	25	44	-	-	-	6	6	-	-	9
Okla.	8	-	-	-	8	1	23	N	N	2	234	237	-	-	-
Tex.	46	-	492	-	17	35	119	5	115	9	26	63	48	58	92
MOUNTAIN	23	-	111	-	32	4	71	3	209	5	102	175	2	18	30
Mont.	1	-	-	-	-	-	2	-	7	-	19	1	-	-	3
Idaho	2	-	-	-	23	-	8	-	9	-	7	15	-	1	8
Wyo.	-	-	-	-	-	1	2	-	2	3	6	6	-	2	4
Colo.	4	-	-	-	6	2	25	1	17	-	34	106	-	2	1
N. Mex.	1	-	88	-	-	-	7	N	N	1	7	11	-	-	-
Ariz.	9	-	-	-	1	1	15	1	166	-	20	18	2	3	6
Utah	6	-	23	-	2	-	7	-	5	1	7	18	-	6	7
Nev.	-	-	-	-	-	-	5	1	3	-	2	-	-	4	1
PACIFIC	257	1	555	-	47	186	289	7	379	82	436	104	3	152	246
Wash.	8	-	125	-	13	5	44	1	39	81	239	16	-	1	9
Oreg.	10	-	-	-	-	9	41	N	N	-	14	6	-	2	13
Calif.	235	1	277	-	30	169	196	5	313	-	111	75	3	144	222
Alaska	-	-	-	-	-	2	7	-	8	-	-	4	-	1	1
Hawaii	4	-	153	-	4	1	1	1	19	1	72	3	-	4	1
Guam	1	U	83	U	2	2	1	U	5	U	-	-	U	2	-
P.R.	4	-	1	-	-	94	3	8	136	-	-	11	-	8	4
V.I.	-	-	-	-	-	5	-	-	5	-	-	-	-	-	2
Pac. Trust Terr.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending September 22, 1984 and September 24, 1983 (38th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1984
UNITED STATES	20,226	23,647	5	15,542	17,007	240	233	721	3,865
NEW ENGLAND	377	491	-	462	488	4	14	5	41
Maine	3	15	-	21	26	-	-	-	12
N.H.	12	19	-	25	31	-	-	-	15
Vt.	1	1	-	9	6	-	-	-	-
Mass.	218	308	-	252	262	4	12	4	9
R.I.	15	16	-	36	39	-	-	-	-
Conn.	130	132	-	119	124	-	2	1	5
MID ATLANTIC	2,735	3,047	-	2,837	2,977	-	38	21	328
Upstate N.Y.	223	276	-	464	471	-	12	7	69
N.Y. City	1,700	1,791	-	1,129	1,181	-	11	2	-
N.J.	478	580	-	633	651	-	9	3	26
Pa.	334	400	-	611	674	-	6	9	233
E.N. CENTRAL	956	1,284	1	2,040	2,275	6	35	52	175
Ohio	185	336	1	373	363	-	6	35	21
Ind.	97	91	-	243	254	-	3	5	19
Ill.	322	627	-	839	985	6	13	9	62
Mich.	293	166	-	454	555	-	5	3	20
Wis.	59	64	-	131	118	-	8	-	53
W.N. CENTRAL	285	289	3	485	563	75	6	45	593
Minn.	77	111	2	79	103	1	2	-	59
Iowa	11	19	-	50	53	-	-	6	123
Mo.	145	109	-	248	294	38	3	12	52
N. Dak.	10	2	1	10	6	-	-	-	122
S. Dak.	-	11	-	18	33	33	-	5	151
Nebr.	11	11	-	25	20	-	-	4	38
Kans.	31	26	-	55	54	3	1	18	48
S. ATLANTIC	5,934	6,282	-	3,271	3,429	5	31	338	1,101
Del.	14	28	-	45	46	-	-	1	4
Md.	379	387	-	328	268	-	2	28	594
D.C.	242	280	-	139	141	-	6	-	-
Va.	305	429	-	351	352	-	8	50	171
W. Va.	13	21	-	96	106	-	-	6	35
N.C.	610	598	-	474	508	1	1	137	24
S.C.	564	399	-	385	311	-	1	72	44
Ga.	1,027	1,138	-	482	624	4	1	41	146
Fla.	2,780	3,002	-	971	1,073	-	12	3	83
E.S. CENTRAL	1,439	1,654	-	1,436	1,533	4	5	75	191
Ky.	78	120	-	344	366	-	2	15	46
Tenn.	375	459	-	437	472	4	2	40	68
Ala.	462	656	-	423	397	-	1	12	77
Miss.	524	419	-	232	298	-	-	8	-
W.S. CENTRAL	4,975	6,171	1	1,767	2,081	107	14	169	788
Ark.	143	148	-	187	238	79	-	29	90
La.	895	1,265	-	242	325	7	1	2	47
Okla.	161	157	1	157	187	16	3	111	88
Tex.	3,776	4,601	-	1,181	1,331	5	10	27	563
MOUNTAIN	448	484	-	423	471	30	12	12	228
Mont.	3	7	-	17	41	3	1	8	100
Idaho	20	6	-	24	24	7	-	1	9
Wyo.	4	10	-	-	11	1	-	3	16
Colo.	120	115	-	50	63	6	3	-	37
N. Mex.	62	129	-	85	87	2	3	-	11
Ariz.	158	120	-	195	182	3	4	-	39
Utah	14	19	-	30	34	4	-	-	2
Nev.	67	78	-	22	29	4	1	-	14
PACIFIC	3,077	3,945	-	2,821	3,190	9	78	4	420
Wash.	106	143	-	145	184	2	2	-	3
Oreg.	81	106	-	110	134	2	1	1	1
Calif.	2,830	3,629	-	2,364	2,652	5	70	2	408
Alaska	4	10	-	43	42	-	1	1	8
Hawaii	56	57	-	159	178	-	4	-	-
Guam	-	-	U	5	5	-	-	-	-
P.R.	575	750	-	273	363	-	3	-	46
V.I.	8	17	-	2	2	-	3	-	-
Pac. Trust Terr.	-	-	U	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending September 22, 1984 (38th Week Ending)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	652	437	146	37	15	17	34
Boston, Mass.	155	83	43	16	6	7	10
Bridgeport, Conn.	42	34	4	3	-	1	1
Cambridge, Mass.	23	18	4	-	1	-	2
Fall River, Mass.	27	18	8	1	-	-	2
Hartford, Conn.	44	29	13	1	-	1	3
Lowell, Mass.	33	23	6	2	2	-	1
Lynn, Mass.	25	13	6	2	4	-	-
New Bedford, Mass.	32	24	6	1	-	1	1
New Haven, Conn.	43	27	9	3	2	2	-
Providence, R.I.	75	62	13	-	-	-	7
Somerville, Mass.	4	3	1	-	-	-	-
Springfield, Mass.	61	43	13	2	-	3	2
Waterbury, Conn.	34	26	7	1	-	-	2
Worcester, Mass.	54	34	13	5	-	2	3
MID. ATLANTIC	2,395	1,570	493	198	65	69	104
Albany, N.Y.	45	27	13	1	4	-	-
Allentown, Pa.	10	9	1	-	-	-	-
Buffalo, N.Y.	90	62	26	2	-	-	12
Camden, N.J.	49	26	11	3	5	4	-
Elizabeth, N.J.	25	17	5	3	-	-	1
Erie, Pa.†	45	35	7	2	-	1	2
Jersey City, N.J.	39	28	7	3	-	1	1
N.Y. City, N.Y.	1,377	872	299	130	39	37	56
Newark, N.J.	39	18	6	8	1	6	9
Paterson, N.J.	28	17	4	2	-	5	2
Philadelphia, Pa.†	219	146	41	21	5	6	7
Pittsburgh, Pa.†	65	38	16	5	3	3	-
Reading, Pa.	38	34	1	1	2	-	3
Rochester, N.Y.	135	106	18	5	3	3	6
Schenectady, N.Y.	20	11	7	2	-	-	1
Scranton, Pa.†	25	19	4	2	-	-	2
Syracuse, N.Y.	84	56	16	7	3	3	1
Trenton, N.J.	22	17	5	-	-	-	-
Utica, N.Y.	11	8	3	-	-	-	-
Yonkers, N.Y.	29	24	4	1	-	-	1
E.N. CENTRAL	2,216	1,422	492	152	72	77	82
Akron, Ohio	69	47	14	3	3	2	-
Canton, Ohio	24	15	8	-	1	-	-
Chicago, Ill.	528	303	135	47	17	26	23
Cincinnati, Ohio	150	103	33	7	1	6	19
Cleveland, Ohio	174	111	35	15	4	9	3
Columbus, Ohio	128	90	25	5	4	4	4
Dayton, Ohio	113	68	27	10	3	5	2
Detroit, Mich.	241	149	48	28	8	8	5
Evansville, Ind.	42	32	7	1	1	1	-
Fort Wayne, Ind.	44	32	9	3	-	-	1
Gary, Ind.	16	7	1	4	3	-	1
Grand Rapids, Mich.	49	33	13	-	1	2	3
Indianapolis, Ind.	139	84	37	6	9	3	3
Madison, Wis.	31	23	4	2	1	1	2
Milwaukee, Wis.	134	96	28	4	2	4	6
Peoria, Ill.	47	30	10	4	3	-	3
Rockford, Ill.	52	33	14	2	2	1	1
South Bend, Ind.	49	37	5	3	1	3	1
Toledo, Ohio	124	82	28	5	7	2	5
Youngstown, Ohio	62	47	11	3	1	-	-
W.N. CENTRAL	683	446	149	30	27	31	30
Des Moines, Iowa	60	42	10	4	3	1	4
Duluth, Minn.	26	20	5	-	-	1	2
Kansas City, Kans.	25	11	9	2	1	2	-
Kansas City, Mo.	120	72	28	7	5	8	7
Lincoln, Nebr.	28	22	5	-	-	1	-
Minneapolis, Minn.	61	41	11	6	1	2	2
Omaha, Nebr.	88	59	20	2	5	2	7
St. Louis, Mo.	138	89	26	3	9	11	3
St. Paul, Minn.	70	51	16	1	1	1	2
Wichita, Kans.	67	39	19	5	2	2	3
S. ATLANTIC	1,193	734	271	93	45	50	45
Atlanta, Ga.	148	86	36	9	8	9	1
Baltimore, Md.	290	173	72	21	15	9	4
Charlotte, N.C.	64	37	12	7	5	3	3
Jacksonville, Fla.	73	48	15	8	2	-	8
Miami, Fla.	102	67	20	10	3	2	1
Norfolk, Va.	51	32	11	3	-	5	3
Richmond, Va.	69	41	18	6	1	3	3
Savannah, Ga.	44	24	12	7	1	-	2
St. Petersburg, Fla.	93	77	11	1	1	3	7
Tampa, Fla.	60	44	11	3	1	1	4
Washington, D.C.	153	80	40	14	6	13	5
Wilmington, Del.	46	25	13	4	2	2	4
E.S. CENTRAL	794	485	196	80	26	37	31
Birmingham, Ala.	98	62	27	5	3	1	3
Chattanooga, Tenn.	53	34	12	3	2	2	5
Knoxville, Tenn.	81	47	19	5	6	4	5
Louisville, Ky.	90	55	24	2	4	5	3
Memphis, Tenn.	220	136	52	18	3	11	9
Mobile, Ala.	77	44	21	3	2	7	2
Montgomery, Ala.	69	46	14	4	2	3	1
Nashville, Tenn.	106	61	27	10	4	4	3
W.S. CENTRAL	1,408	777	366	135	72	58	50
Austin, Tex.	61	39	13	5	3	1	7
Baton Rouge, La.	51	31	13	1	1	5	-
Corpus Christi, Tex.	31	22	4	3	-	2	-
Dallas, Tex.	193	109	54	18	7	5	3
El Paso, Tex.	48	25	12	3	5	3	1
Fort Worth, Tex.	101	69	21	4	4	3	6
Houston, Tex.	419	207	120	46	29	17	8
Little Rock, Ark.	53	34	13	4	-	2	7
New Orleans, La.	140	68	40	16	6	10	-
San Antonio, Tex.	194	107	48	24	13	2	11
Shreveport, La.	38	24	8	1	1	4	1
Tulsa, Okla.	79	42	20	10	3	4	6
MOUNTAIN	598	359	136	48	22	33	22
Albuquerque, N.Mex.	82	54	16	8	4	-	3
Colo. Springs, Colo.	36	27	7	-	1	1	5
Denver, Colo.	106	61	25	8	4	8	1
Las Vegas, Nev.	59	29	13	9	3	5	1
Ogden, Utah	20	13	3	2	1	1	2
Phoenix, Ariz.	146	87	32	14	4	9	1
Pueblo, Colo.	28	17	8	1	-	2	5
Salt Lake City, Utah	58	31	13	4	3	7	1
Tucson, Ariz.	63	40	19	2	2	-	3
PACIFIC	1,852	1,177	400	146	72	50	97
Berkeley, Calif.	17	6	5	5	-	1	-
Fresno, Calif.	70	40	20	2	5	3	8
Glendale, Calif.	32	24	5	2	1	-	2
Honolulu, Hawaii	65	39	16	3	5	2	7
Long Beach, Calif.	73	46	20	1	4	2	3
Los Angeles, Calif.	595	372	126	58	26	7	14
Oakland, Calif.	79	54	16	5	2	2	1
Pasadena, Calif.	38	26	6	2	3	1	5
Portland, Oreg.	104	77	19	3	1	4	5
Sacramento, Calif.	107	67	23	9	3	5	5
San Diego, Calif.	154	92	36	14	5	7	13
San Francisco, Calif.	151	94	26	21	3	7	4
San Jose, Calif.	150	92	35	14	7	2	15
Seattle, Wash.	133	87	33	4	4	5	4
Spokane, Wash.	44	28	8	3	2	2	3
Tacoma, Wash.	40	33	6	-	1	-	8
TOTAL	11,79††	7,407	2,649	889	416	422	495

* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

Hemorrhagic Fever – Continued

CCHF ranging in titer from 1:16 to 1:4096; five of 20 cows tested from the farmer's original herd had demonstrable antibodies ranging in titer from 1:32 to 1:512. No *Hyalomma* ticks (common carriers of CCHF virus) were seen on cattle in May, but partially engorged *Rhipicephalus evertsi* and *Boophilus decoloratus* were removed from the cattle and are being tested for the presence of virus.

Cases 6 and 7: A 46-year-old man became ill in November 1983 with fever, severe headache, rash, and epistaxis. IFA testing of his serum confirmed the diagnosis of CCHF. The patient lived in Germiston, near Johannesburg, but kept cattle at a farm near Bronkhorstspruit, northeast of Pretoria. Shortly before onset of illness, he had been involved in dehorning and castrating cattle. He did not recall being bitten by ticks.

The last patient, a 32-year-old farmer from Danielskuil, west of Kimberley in the Cape province, became ill on February 2, 1984, with a severe influenza-like illness and rash. Sera obtained on March 14 and March 23 demonstrated respective IFA titers to CCHF of 1:1024 and 1:4096. The patient had slaughtered sheep shortly before his illness began.

Reported by R Swanepoel, AJ Shepherd, MJ Erasmus, National Institute for Virology, Dept of Health and Welfare, Transvaal, Dr MPJ van Rensburg, R Wessels, Regional Health Svcs, Orange Free State, Dr S Hattingh, Professor BD Middlecote, Bloemfontein; Dr Schutte, Dr van der Lingen, Dr van Rensburg, Dr Venter, Frankfort, Dr D van Coller, Germiston; Dr JD van Rensburg, Kimberley; Dr B Miller, Rietfontein Hospital, Johannesburg, Dr KD McDonald, Dr SP Taylor, Dr HGV Kustner, National Epidemiological Svc, Pretoria, Republic of South Africa; Special Pathogens Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The first indigenous case of CCHF in South Africa was reported in 1981. CCHF antibodies have since been found to be common in cattle but not in man, in the interior of the country. In a serosurvey, only 17 of 1,108 sera from people who had spent their entire lives on farms in the interior were positive (*1*).

CCHF is a distinct clinical entity caused by a tick-borne member of the *Bunyaviridae* family. The disease, which occurs in eastern Europe, central Asia, the Middle East, and Africa, has a relatively short incubation period (3-6 days) and an abrupt onset characterized by fever, chills, headache, myalgia, abdominal pain, nausea, liquid stools, and anorexia. Conjunctivitis, enanthema of the oral mucosa, leukopenia, and severe thrombocytopenia may also be present. Hemorrhagic manifestations may occur by the fourth day, followed by hypotension and shock. Mortality ranges from about 10% to about 50%. Diagnosis is confirmed by serology or by isolation of virus from blood or tissues obtained at autopsy (*2*). CCHF is classically transmitted by the bite of an ixodid tick, most often of the *Hyalomma* genus. The virus seems to be maintained in nature by trans-ovarial and trans-stadial (from larva to nymph to adult) passage among ticks and by transmission from ticks to asymptomatic wild and domestic mammals, such as cattle, sheep, goats, camels, hares, and hedgehogs (*2-4*). Agricultural workers are at highest risk for contracting CCHF. Contacts of patients have also contracted the disease, either in homes or in hospitals via blood or bloody discharges.

CCHF virus, the presence of which was unrecognized in South Africa before 1981, now appears to be widespread in animal reservoirs throughout much of the country (*1,5*). It is still uncommon among humans, and immunity appears to be rare. Thus, there is a large susceptible population, and the risk of infection exists for livestock workers, veterinarians, and others who live, work, or play in rural environments.

(Continued on page 548)

Final 1983 Reports of Notifiable Diseases

The following table summarizes final data reported for 1983, which will be published in more detail in the *MMWR Annual Summary 1983*.

NOTIFIABLE DISEASES—Reported cases, by geographic division and area, United States, 1983

Area	Tot. Resident Population (in thousands)	Amebiasis	Aseptic meningitis	Botulism				Brucellosis	Chancroid
				Food-borne	Infant	Wound	Unsp.		
United States	**233,981**[1]	**6,668**	**12,696**	**50**	**79**	**3**	**1**	**200**	**947**[2]
New England	**12,489**	**62**	**472**	—	**2**	—	—	**2**	**2**
Maine	1,146	1	23	—	—	—	—	—	-
N.H.	959	2	29	—	—	—	—	—	2
Vt.	525	6	29	—	—	—	—	—	-
Mass.	5,767	10	176	—	1	—	—	1	—
R.I.	955	-	41	—	—	—	—	—	-
Conn.	3,138	43	174	—	1	—	—	1	-
Mid. Atlantic	**37,029**[3]	**2,362**	**1,856**	**1**	**16**	**2**	—	**4**	**406**
N.Y. (excl. NYC)	17,667[3]	49	482	—	—	—	—	—	—
N.Y.C.	NA	2,145	219	—	1	2	—	1	404
N.J.	7,468	131	456	—	—	—	—	—	2
Pa.	11,895	27	399	-1	14	—	—	3	—
E.N. Central	**41,531**	**191**	**3,052**	**31**	**3**	—	**1**	**8**	**36**
Ohio	10,746	36	676	—	1	—	—	2	—
Ind.	5,479	16	502	—	—	—	—	—	4
Ill.	11,486	99	567	29	2	—	1	2	14
Mich.	9,069	17	1,064	2	—	—	—	3	16
Wis.	4,751	23	223	—	—	—	—	1	2
W.N. Central	**17,422**	**163**	**689**	—	—	—	—	**20**	—
Minn.	4,144	43	116	—	—	—	—	3	—
Iowa	2,906	39	142	—	—	—	—	6	—
Mo.	4,970	45	277	—	—	—	—	4	—
N. Dak.	680	1	3	—	—	—	—	—	—
S. Dak.	700	1	22	—	—	—	—	4	—
Nebr.	1,597	4	22	—	—	—	—	1	—
Kans.	2,425	30	107	—	—	—	—	2	—
S. Atlantic	**39,906**	**305**	**2,030**	**1**	**3**	**1**	—	**38**	**286**
Del.	606	NN	21	—	1	—	—	—	2
Md.	4,304	10	273	1	—	1	—	1	—
D.C.	623	1	22	—	—	—	—	—	—
Va.	5,550	91	338	—	1	—	—	24	1
W. Va.	1,965	3	42	—	—	—	—	—	—
N.C.	6,082	8	571	—	1	—	—	1	35
S.C.	3,264	NN	82	—	—	—	—	—	—
Ga.	5,732	132	93	—	—	—	—	4	146
Fla.	10,680	60	588	—	—	—	—	6	101
E.S. Central	**14,946**	**48**	**881**	**1**	**6**	—	—	**14**	**1**
Ky.	3,714	43	228	1	3	—	—	2	—
Tenn.	4,685	NN	153	—	3	—	—	2	—
Ala.	3,959	5	445	—	—	—	—	5	1
Miss.	2,587	—	55	—	—	—	—	5	—
W.S. Central	**25,788**	**444**	**1,752**	**1**	**2**	—	—	**98**	**3**
Ark.	2,328	11	33	—	—	—	—	5	—
La.	4,438	8	178	—	—	—	—	1	1
Okla.	3,298	13	366	—	—	—	—	6	—
Tex.	15,724	412	1,175	1	2	—	—	84	2
Mountain	**12,331**	**102**	**489**	**4**	**4**	—	—	**5**	**2**
Mont.	817	—	8	—	1	—	—	—	1
Idaho	989	5	14	—	—	—	—	3	1
Wyo.	514	3	17	—	—	—	—	—	—
Colo.	3,139	56	278	2	—	—	—	1	—
N. Mex.	1,399	2	17	—	1	—	—	1	—
Ariz.	2,963	31	70	1	—	—	—	—	—
Utah	1,619	5	61	1	2	—	—	—	—
Nev.	891	—	24	—	—	—	—	—	—
Pacific	**33,639**	**2,991**	**1,775**	**11**	**44**	—	—	**15**	**112**
Wash.	4,300	38	141	2	6	—	—	3	—
Oreg.	2,662	93	NN	2	1	—	—	—	—
Calif.	25,174	2,840	1,355	4	33	—	—	12	112
Alaska	479	2	26	3	—	—	—	—	—
Hawaii	1,023	18	253	—	4	—	—	—	—
Guam	NA	1	11	—	—	—	—	—	—
P.R.	NA	6	123	—	—	—	—	—	18
V.I.	NA	—	—	—	—	—	—	—	—
Pac. Trust Terr.	NA	634	—	NN	NN	NN	NN	NN	—
C.N.M.I.	NA	3	—	NN	NN	NN	NN	NN	—

[1] Estimates from the U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 944.
[2] Civilian cases only.
[3] Population estimate includes New York City.

NN (not notifiable)
NA (not available)

NOTIFIABLE DISEASES—Reported cases, by geographic division and area, United States, 1983 (continued)

Area	Chickenpox	Cholera	Diphtheria	Encephalitis: Primary	Encephalitis: Indeterminate	Encephalitis: Post childhood inf.	Gonorrhea	Granuloma inguinale
United States	**177,462**	**1**	**5**	**360**	**1,401**	**34**	**900,436**[1]	**24**[1]
New England	**24,703**	—	—	**22**	**37**	**4**	**23,473**	—
Maine	5,935	—	—	—	—	—	1,119	—
N.H.	869	—	—	3	2	—	728	—
Vt.	NN	—	—	1	—	—	443	—
Mass.	7,459	—	—	7	19	2	9,937	—
R.I.	3,240	—	—	—	3	—	1,357	—
Conn.	7,200	—	—	11	13	2	9,889	—
Mid. Atlantic	**9,845**	**1**	**2**	**28**	**110**	**9**	**116,636**	**5**
N.Y. (excl. N.Y.C.)	5,211	—	1	11	26	2	19,185	—
N.Y.C.	4,383	—	—	—	—	—	46,407	5
N.J.	NN	1	—	7	12	3	21,794	—
Pa.	251	—	1	10	72	4	29,250	—
E.N. Central	**93,892**	—	—	**112**	**612**	**14**	**133,275**	—
Ohio	8,628	—	—	45	150	6	33,646	—
Ind.	8,889	—	—	19	191	2	15,454	—
Ill.	20,258	—	—	21	97	4	38,700	—
Mich.	39,449	—	—	—	121	—	34,065	—
Wis.	16,368	—	—	27	53	2	11,410	—
W.N. Central	**15,210**	—	—	**37**	**143**	—	**42,419**	—
Minn.	44	—	—	19	63	—	5,885	—
Iowa	6,186	—	—	7	44	—	4,574	—
Mo.	408	—	—	—	29	—	20,718	—
N. Dak.	902	—	—	4	—	—	438	—
S. Dak.	645	—	—	1	—	—	1,036	—
Nebr.	169	—	—	2	3	—	2,765	—
Kans.	6,856	—	—	4	4	—	7,003	—
S. Atlantic	**8,980**	—	—	**56**	**178**	**5**	**231,684**	**13**
Del.	281	—	—	—	1	—	4,272	—
Md.	1,367	—	—	9	14	1	30,039	—
D.C.	50	—	—	—	—	—	16,308	—
Va.	1,277	—	—	10	44	1	21,122	2
W. Va.	4,822	—	—	2	48	—	2,434	—
N.C.	NN	—	—	4	34	1	35,910	—
S.C.	NN	—	—	—	3	—	21,485	1
Ga.	1,183	—	—	8	1	—	46,734	9
Fla.	NN	—	—	22	33	2	53,380	1
E.S. Central	**3,318**	—	—	**10**	**37**	—	**74,733**	—
Ky.	2,912	—	—	—	17	—	8,852	—
Tenn.	NN	—	—	—	—	—	30,896	—
Ala.	NN	—	—	6	14	—	22,626	—
Miss.	406	—	—	4	6	—	12,359	—
W.S. Central	**15,179**	—	**2**	**56**	**120**	**1**	**124,343**	**3**
Ark.	148	—	1	3	12	—	9,752	—
La.	NN	—	—	6	24	—	23,483	—
Okla.	NN	—	1	4	30	1	14,284	—
Tex.	15,031	—	—	43	54	—	76,824	3
Mountain	**3,599**	—	—	**19**	**60**	—	**29,013**	—
Mont.	87	—	—	2	—	—	1,216	—
Idaho	96	—	—	1	—	—	1,285	—
Wyo.	125	—	—	1	—	—	739	—
Colo.	NN	—	—	6	40	—	7,972	—
N. Mex.	NN	—	—	2	—	—	3,524	—
Ariz.	2,584	—	—	5	10	—	8,527	—
Utah	449	—	—	2	9	—	1,363	—
Nev.	258	—	—	—	1	—	4,387	—
Pacific	**3,036**	—	**1**	**21**	**104**	**1**	**124,859**	**3**
Wash.	NN	—	—	3	17	—	9,895	—
Oreg.	NN	—	—	—	4	—	6,670	—
Calif.	1,273	—	1	18	74	1	102,899	3
Alaska	321	—	—	—	—	—	3,167	—
Hawaii	1,442	—	—	—	9	—	2,228	—
Guam	102	1	—	—	—	—	137	—
P.R.	1,238	—	—	—	3	—	3,138	1
V.I.	80	—	—	—	—	—	—	—
Pac. Trust Terr.	228	314	—	—	—	—	—	—
C.N.M.I.	39	—	—	—	—	—	—	—

[1] Civilian cases only.

NN (not notifiable)

NOTIFIABLE DISEASES—Reported cases, by geographic division and area, United States, 1983 (continued)

Area	Hepatitis A	Hepatitis B	Hepatitis non-A non-B	Hepatitis unsp.	Legionellosis	Leprosy	Leptospirosis	Lymphogranuloma venereum	Malaria
United States	**21,532**	**24,318**	**3,470**	**7,149**	**852**	**259**[1]	**61**	**335**[2]	**813**[3]
New England	**421**	**1,372**	**118**	**295**	**104**	**6**	**1**	**—**	**36**
Maine	31	51	14	5	1	—	—	—	—
N.H.	31	42	6	4	—	1	—	—	2
Vt.	29	43	14	3	3	—	—	—	1
Mass.	199	696	34	155	22	1	—	—	17
R.I.	40	102	2	—	27	1	—	—	3
Conn.	91	438	48	38	51	3	1	—	13
Mid. Atlantic	**2,248**	**4,515**	**319**	**713**	**167**	**35**	**3**	**43**	**131**
N.Y. (excl. NYC)	344	827[4]	98	128[4]	NN	—	—	—	33
N.Y.C.	507[4]	1,327[4]	—	158[4]	58	31	1	41	45
N.J.	546	1,174	101	378	34	2	1	2	29
Pa.	851	1,187	120	49	75	2	1	—	24
E.N. Central	**2,268**	**3,099**	**364**	**563**	**296**	**8**	**3**	**6**	**70**
Ohio	814	804	74	152	135	1	1	—	10
Ind.	314	377	51	157	24	1	—	2	10
Ill.	373	724	84	80	45	3	1	—	30
Mich.	623	1,009	111	156	55	3	1	3	15
Wis.	134	185	44	17	37	—	—	—	5
W.N. Central	**707**	**760**	**143**	**144**	**61**	**6**	**6**	**—**	**30**
Minn.	175	140	48	6	3	4	1	—	11
Iowa	31	90	40	13	7	—	—	—	3
Mo.	123	365	33	87	39	1	5	—	4
N. Dak.	26	17	4	7	5	—	—	—	2
S. Dak.	187	17	3	1	1	—	—	—	1
Nebr.	69	57	5	18	2	—	—	—	3
Kans.	96	74	10	12	4	1	—	—	6
S. Atlantic	**1,940**	**4,840**	**524**	**722**	**77**	**13**	**9**	**246**	**131**
Del.	29	99	12	14	5	—	—	1	1
Md.	120	827	98	95	14	1	—	—	26
D.C.	16	137	5	16	—	—	—	—	20
Va.	126	528	84	92	24	1	3	4	31
W. Va.	69	94	15	13	2	—	—	—	3
N.C.	133	426	NN	114	NN	2	—	4	4
S.C.	235	508	16	49	6	—	1	—	5
Ga.	251	823	42	34	3	1	—	218	10
Fla.	961	1,398	252	295	23	8	5	19	31
E.S. Central	**1,612**	**1,612**	**184**	**147**	**14**	**—**	**3**	**—**	**16**
Ky.	959	229	29	43	8	—	1	—	2
Tenn.	228	697	79	55	NN	—	—	—	—
Ala.	183	424	76	49	5	—	2	—	7
Miss.	142	162	NN	NN	1	—	—	—	7
W.S. Central	**4,550**	**2,067**	**117**	**2,859**	**23**	**36**	**15**	**7**	**74**
Ark.	91	127	27	143	5	—	1	—	1
La.	600	355	37	118	8	1	6	4	11
Okla.	829	351	53	211	12	—	4	—	8
Tex.	3,030	1,234	NN	2,387	NN	35	4	3	54
Mountain	**2,035**	**1,051**	**256**	**402**	**38**	**20**	**3**	**2**	**30**
Mont.	33	21	2	16	9	—	—	—	—
Idaho	110	42	11	7	1	—	1	—	2
Wyo.	33	22	3	11	1	1	1	—	1
Colo.	394	227	56	50	9	3	1	—	11
N. Mex.	248	94	35	28	—	—	—	—	5
Ariz.	919	365	101	198	11	14	—	2	8
Utah	145	83	28	48	5	2	—	—	3
Nev.	153	197	20	44	—	—	—	—	—
Pacific	**5,961**	**5,102**	**1,445**	**1,395**	**74**	**135**	**18**	**32**	**286**
Wash.	269	307	151	49	14	16	—	1	15
Oreg.	783	289	118	31	3	1	1	1	11
Calif.	4,702	4,402	1,154	1,303	56	77	1	30	267
Alaska	52	51	7	2	NN	—	NN	—	—
Hawaii	55	73	15	10	1	41	16	—	2
Guam	6	8	1	9	—	4	—	—	3
P.R.	329	488	1	462	—	—	—	3	3
V.I.	4	20	—	2	—	—	—	—	—
Pac. Trust. Terr.	34	—	—	86	NN	14	—	—	—
C.N.M.I.	—	—	—	—	—	-	—	—	—

NN (not notifiable)

[1] Includes 223 imported cases.
[2] Civilian cases only.
[3] Includes 805 imported cases.
[4] Classifications based on HBsAg test results.

NOTIFIABLE DISEASES—Reported cases, by geographic division and area, United States, 1983 (continued)

Area	Measles		Meningococcal infections	Mumps	Pertussis	Plague	Poliomyelitis		Psittacosis
	Indigenous	Imported					Total	Paralytic	
United States	**1,163**	**334**[1]	**2,736**	**3,366**	**2,463**	**40**	**15**	**15**	**142**
New England	**5**	**16**	**163**	**133**	**75**	—	—	—	**6**
Maine	—	—	10	30	5	—	—	—	—
N.H.	—	3	8	29	10	—	—	—	—
Vt.	—	—	11	15	8	—	—	—	1
Mass.	4	5	57	20	40	—	—	—	3
R.I.	—	—	12	16	5	—	—	—	—
Conn.	1	8	65	23	7	—	—	—	2
Mid. Atlantic	**75**	**45**	**461**	**368**	**448**	—	**2**	**2**	**21**
N.Y. (excl. NYC)	4	14	145	110	119	—	—	—	11
N.Y.C.	45	27	89	37	61	—	1	1	8
N.J.	26	1	77	129	17	—	—	—	2
Pa.	—	3	150	92	251	—	1	1	—
E.N. Central	**664**	**92**	**498**	**1,491**	**515**	—	**5**	**5**	**16**
Ohio	72	16	150	591	158	—	1	1	3
Ind.	402	4	59	56	60	—	3	3	4
Ill.	184	32	133	215	179	—	1	1	2
Mich.	6	39	91	526	43	—	—	—	2
Wis.	—	1	65	103	75	—	—	—	5
W.N. Central	**1**	**7**	**151**	**183**	**227**	—	**2**	**2**	**23**
Minn.	1	—	35	30	49	—	—	—	16
Iowa	—	—	20	49	9	—	—	—	3
Mo.	—	1	55	21	23	—	2	2	1
N. Dak.	—	—	4	3	3	—	—	—	—
S. Dak.	—	—	4	—	8	—	—	—	—
Nebr.	—	—	5	3	5	—	—	—	—
Kans.	—	6	28	77	130	—	—	—	3
S. Atlantic	**174**	**32**	**565**	**246**	**283**	—	—	—	**6**
Del.	—	—	13	10	5	—	—	—	1
Md.	6	5	53	45	39	—	—	—	1
D.C.	—	—	6	3	5	—	—	—	—
Va.	10	13	81	37	50	—	—	—	—
W. Va.	—	—	3	60	9	—	—	—	—
N.C.	—	1	108	14	34	—	—	—	—
S.C.	—	4	54	14	14	—	—	—	—
Ga.	8	—	90	63	70	—	—	—	2
Fla.	150	9	157	NN	57	—	—	—	1
E.S. Central	**3**	**24**	**161**	**60**	**32**	—	**1**	**1**	**1**
Ky.	—	1	31	21	14	—	1	1	—
Tenn.	—	—	58	30	8	—	—	—	—
Ala.	1	4	50	2	5	—	—	—	—
Miss.	2	19	22	7	5	—	—	—	1
W.S. Central	**45**	**35**	**307**	**229**	**482**	—	**2**	**2**	**8**
Ark.	5	8	24	3	28	—	—	—	—
La.	4	25	57	1	11	—	1	1	1
Okla.	1	—	38	NN	348	—	—	—	—
Texas	35	2	188	225	95	—	1	1	7
Mountain	**22**	**19**	**96**	**194**	**239**	**38**	—	—	**18**
Mont.	—	4	5	9	2	—	—	—	1
Idaho	—	10	9	9	16	—	—	—	2
Wyo.	—	1	2	3	6	—	—	—	—
Colo.	—	3	36	54	138	1	—	—	11
N. Mex.	—	—	8	NN	13	26	—	—	4
Ariz.	—	1	24	97	32	10	—	—	—
Utah	22	—	12	17	31	1	—	—	—
Nev.	—	—	—	5	1	—	—	—	—
Pacific	**174**	**64**	**334**	**451**	**162**	**2**	**3**	**3**	**43**
Wash.	2	41	48	55	20	—	1	1	5
Oreg.	8	2	60	NN	10	1	1	1	7
Calif.	164	17	217	360	125	1	1	1	31
Alaska	—	2	4	16	4	—	—	—	—
Hawaii	—	2	5	20	3	—	—	—	—
Guam	1	2	3	2	—	—	—	—	—
P.R.	95	—	11	146	15	—	—	—	—
V.I.	—	5	—	—	—	—	—	—	—
Pac. Trust Terr.	—	—	3	8	—	—	—	—	NN
C.N.M.I.	—	—	—	4	—	—	—	—	NN

[1] For measles only, imported includes both out-of-state and international importations.

NN (not notifiable)

NOTIFIABLE DISEASES—Reported cases, by geographic division and area, United States, 1983 (continued)

Area	Rabies		Rheumatic fever, acute	Rubella		Salmonellosis	Shigellosis	Syphilis	
	Animal	Human		Rubella	Cong. syndrome			Primary & secondary	All stages
United States	**5,824**	**2**[1]	**98**	**970**	**22**	**44,250**	**19,719**	**32,698**[2]	**74,637**[2]
New England	**47**	**1**	**19**	**21**	**—**	**4,053**	**558**	**685**	**1,666**
Maine	17	—	1	—	—	255	11	18	57
N.H.	5	—	—	5	—	173	16	21	27
Vt.	2	—	—	5	—	185	9	3	15
Mass.	15	1	NN	8	—	2,186	323	416	949
R.I.	2	—	17	—	—	216	19	22	96
Conn.	6	—	1	3	—	1,068	180	175	522
Mid. Atlantic	**276**	**—**	**—**	**148**	**2**	**8,322**	**2,657**	**4,288**	**11,653**
N.Y. (excl. NYC)	84	—	NN	32	2	1,543	352	419	1,163
N.Y.C.	-	—	NN	87	NN	2,829	1,238	2,459	6,805
N.J.	24	—	NN	3	—	2,046	561	815	2,075
Pa.	168	—	NN	26	—	1,904	506	595	1,610
E.N. Central	**464**	**1**	**9**	**145**	**3**	**6,247**	**2,727**	**1,783**	**5,469**
Ohio	60	—	6	2	—	1,007	366	432	1,067
Ind.	30	—	—	30	—	582	269	153	438
Ill.	236	—	—	63	1	2,324	1,398	812	2,953
Mich.	19	1	1	21	1	1,283	421	289	735
Wis.	119	—	2	29	1	1,051	273	97	276
W.N. Central	**868**	**—**	**10**	**45**	**2**	**2,308**	**715**	**453**	**1,629**
Minn.	171	—	NN	9	—	523	84	204	410
Iowa	202	—	2	—	—	340	66	20	78
Mo.	97	—	3	—	—	602	264	145	802
N. Dak.	92	—	1	—	—	135	7	2	3
S. Dak.	149	—	1	—	1	135	116	11	24
Nebr.	64	—	NN	—	—	113	86	15	41
Kans.	83	—	3	36	1	460	92	56	271
S. Atlantic	**2,146**	**—**	**13**	**102**	**—**	**9,254**	**2,148**	**8,810**	**19,204**
Del.	7	—	1	—	—	141	16	42	68
Md.	828	—	1	3	—	1,407	462	517	1,329
D.C.	162	—	—	—	—	216	80	397	1,145
Va.	625	—	NN	2	—	1,471	285	560	1,389
W. Va.	120	—	1	—	—	193	14	24	412
N.C.	24	—	NN	10	—	1,042	256	886	1,734
S.C.	35	—	NN	1	NN	915	92	608	1,224
Ga.	214	—	2	16	—	1,537	241	1,597	3,494
Fla.	131	—	8	70	—	2,332	700	4,179	8,409
E.S. Central	**365**	**—**	**1**	**19**	**1**	**2,053**	**413**	**2,142**	**4,351**
Ky.	83	—	1	18	—	414	81	176	471
Tenn.	190	—	NN	—	—	521	191	588	1,211
Ala.	83	—	NN	1	1	737	105	815	1,522
Miss.	9	—	—	—	—	381	36	563	1,147
W.S. Central	**999**	**—**	**13**	**128**	**1**	**4,141**	**2,607**	**9,279**	**16,836**
Ark.	161	—	—	—	1	456	78	185	413
La.	34	—	—	10	—	250	82	1,642	3,671
Okla.	107	—	NN	1	—	597	241	196	542
Tex.	696	—	13	117	—	2,838	2,206	6,256	12,210
Mountain	**279**	**—**	**13**	**38**	**1**	**1,861**	**1,908**	**667**	**1,598**
Mont.	119	—	NN	4	—	164	19	5	10
Idaho	17	—	NN	8	—	109	38	10	20
Wyo.	10	—	4	9	—	27	8	13	36
Colo.	36	—	2	1	1	484	318	153	337
N. Mex.	15	—	5	—	—	409	432	182	429
Ariz.	33	—	—	8	—	498	928	172	486
Utah	11	—	2	7	—	114	105	23	58
Nev.	38	—	—	1	—	56	60	109	222
Pacific	**391**	**—**	**10**	**324**	**12**	**6,011**	**5,988**	**5,621**	**12,231**
Wash.	10	—	—	10	—	739	370	196	534
Oreg.	3	—	NN	14	1	411	199	144	274
Calif.	359	—	9	298	11	4,353	5,275	5,183	11,247
Alaska	19	—	1	1	—	177	10	15	45
Hawaii	—	—	NN	1	—	331	134	83	131
Guam	-	—	2	—	—	143	39	—	9
P.R.	36	—	4	9	—	355	188	907	2,248
V.I.	—	—	—	2	—	7	6	—	—
Pac. Trust Terr.	—	—	—	—	NN	—	—	—	—
C.N.M.I.	—	—	—	—	NN	33	28	—	—

[1] Includes 1 imported case.
[2] Civilian cases only.

NN (not notifiable)

NOTIFIABLE DISEASES—Reported cases, by geographic division and area, United States, 1983 (continued)

Area	Tetanus	Toxic-shock syndrome	Trichinosis	Tuberculosis	Tularemia	Typhoid fever		Typhus fever	
						Cases	Carriers	Murine	Rocky Mt. Spotted
United States	**91**	**802**	**45**	**23,846**	**310**	**507**[1]	**81**	**62**	**1,126**
New England	**1**	**17**	**8**	**731**	**4**	**25**	**5**	**–**	**8**
Maine	–	6	–	39	–	–	–	–	–
N.H.	1	4	–	38	–	–	–	–	1
Vt.	–	1	–	11	–	–	–	–	–
Mass.	–	3	5	389	3	18	2	–	3
R.I.	–	2	–	60	1	1	–	–	–
Conn.	–	1	3	194	–	6	3	–	4
Mid. Atlantic	**11**	**39**	**19**	**4,090**	**4**	**96**	**9**	**–**	**31**
N.Y. (excl. NYC)	2	NN	2	658	1	11	–	–	7
N.Y.C.	4	3	4	1,651	–	47	–	–	3
N.J.	4	7	6	809	–	30	8	–	8
Pa.	1	29	5	972	3	8	1	–	13
E.N. Central	**12**	**153**	**2**	**3,284**	**5**	**67**	**2**	**1**	**70**
Ohio	3	37	2	519	–	18	–	1	27
Ind.	–	14	–	411	–	4	–	–	18
Ill.	5	24	–	1,380	2	32	1	–	17
Mich.	–	31	–	790	1	10	–	–	7
Wis.	4	47	–	184	2	3	1	–	3
W.N. Central	**6**	**71**	**1**	**785**	**82**	**15**	**3**	**–**	**44**
Minn.	3	18	–	165	1	2	–	–	1
Iowa	1	17	–	65	–	–	1	–	–
Mo.	1	16	1	399	51	9	NN	–	14
N. Dak.	–	2	–	9	1	–	–	–	1
S. Dak.	–	3	–	46	10	–	–	–	5
Nebr.	1	7	–	25	8	2	–	–	3
Kans.	–	8	–	76	11	2	2	–	20
S. Atlantic	**19**	**48**	**6**	**4,817**	**14**	**54**	**7**	**1**	**473**
Del.	–	2	–	65	–	–	–	–	4
Md.	2	11	3	409	4	7	5	–	34
D.C.	–	4	–	202	–	2	–	–	–
Va.	2	9	–	520	1	16	2	–	60
W. Va.	2	7	1	133	–	2	–	–	11
N.C.	5	NN	2	780	8	4	–	–	208
S.C.	1	1	–	443	–	2	–	–	80
Ga.	3	–	–	808	1	2	–	1	68
Fla.	4	14	–	1,457	–	19	NN	–	8
E.S. Central	**6**	**10**	**2**	**2,104**	**23**	**9**	**1**	**–**	**110**
Ky.	–	4	–	523	1	2	1	–	24
Tenn.	1	NN	2	645	17	2	–	–	49
Ala.	3	6	–	522	–	2	–	–	24
Miss.	2	–	–	414	5	3	–	–	13
W.S. Central	**16**	**45**	**6**	**3,149**	**118**	**82**	**11**	**46**	**372**
Ark.	4	4	–	414	65	4	1	–	41
La.	4	–	2	439	6	4	2	–	2
Okla.	–	12	–	331	34	2	1	–	221
Tex.	8	29	4	1,965	13	72	7	46	108
Mountain	**2**	**40**	**–**	**682**	**51**	**26**	**3**	**–**	**16**
Mont.	–	1	–	47	8	–	–	–	8
Idaho	–	6	–	35	2	1	–	–	3
Wyo.	–	2	–	14	7	–	–	–	2
Colo.	–	8	–	108	19	1	2	–	–
N. Mex.	–	2	–	116	4	3	1	–	–
Ariz.	2	4	–	264	1	19	–	–	1
Utah	–	16	–	46	9	1	–	–	1
Nev.	–	1	–	52	1	1	–	–	1
Pacific	**18**	**79**	**1**	**4,224**	**9**	**133**	**20**	**14**	**2**
Wash.	2	11	–	239	2	6	–	–	–
Oreg.	2	13	–	182	3	4	–	–	–
Calif.	13	55	–	3,469	3	119	20	1	2
Alaska	1	NN	–	98	1	–	–	NN	NN
Hawaii	–	–	1	236	–	4	–	13	NN
Guam	2	–	–	48	–	–	–	–	–
P.R.	6	–	–	452	–	1	–	–	–
V.I.	–	–	–	2	–	1	–	–	–
Pac. Trust Terr.	–	–	NN	188	NN	41	–	–	–
C.N.M.I.	–	–	NN	74	NN	–	–	–	–

[1] Includes 304 imported cases.

NN (not notifiable)

Hemorrhagic Fever – Continued

All seven patients reported here had exposure to cattle or sheep, and none could claim with certainty any tick bites. Although transmission via infected material from domestic mammals is known to occur (*2*), it appears to be the most common mechanism in South Africa. Reports in the literature have associated viremia with clinical illness and abortion in cattle and other domestic mammals (*2,6*). Although viral isolation or serology was not attempted, at least two of the three cows that died on the farm in Frankfort probably had CCHF viremia. Whether their clinical illness was due to CCHF is unclear. Furthermore, 17 of 20 cows from a nonendemic area were seropositive when tested in an endemic area. Presumably, these cows seroconverted between January, when they were first brought to the endemic area, and May, when they were tested. This presumed seroconversion may have been associated with viremia and possibly shedding of virus in other fluids, such as saliva and urine.

Persons who come in close contact with these animals, which may not have clinical symptoms, are in danger of acquiring the virus. The importation of nonimmune cattle—and perhaps other domestic animals—into an endemic area may be an important means by which CCHF virus is ultimately transmitted to humans.

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